ABSTRACT OF THE DISCLOSURE

Highly durable silica glass containing 0.01% to 2% by weight of at least one element selected from magnesium, calcium, strontium, barium, yttrium, hafnium and zirconium. The silica glass is produced by melting a powdery material comprising a finely divided silica powder and a finely divided zirconium-containing substance by oxyhydrogen flame or plasma arc to form an accumulated molten material layer, and extending the molten material layer outwardly in radial directions.